

I CLAIM:

1. Cattle stanchion apparatus for controlling movement of cattle relative to such apparatus, said cattle stanchion apparatus comprising:
  - a fixed support structure;
  - a plurality of release stanchion bar assemblies supported by the fixed support structure along the length of the fixed support structure;
  - each release stanchion assembly including a pair of like, facing double release stanchion bars pivotally connected for free swinging movement towards and away from one another when engaged by a feeding cow;
  - the space between such release stanchion bars defining a cow head receiving opening; and
  - a release stanchion bar control assembly interposed between the fixed support structure and the release stanchion bars to control the swinging movement of such bars.

2. Cattle stanchion apparatus as set forth in Claim 1, wherein the release stanchion

bars are biased to automatically assume a position in which the upper ends of such stanchion bars

are spaced apart.

3. Cattle stanchion apparatus as set forth in Claim 1, wherein the lower portion of

the release stanchion bars are weighted to cause such stanchion bars to automatically assume a

position wherein their upper ends are spaced apart.

4. Cattle stanchion apparatus as set forth in Claim 1, wherein the release stanchion

bar control assembly includes a latch bracket on the upper portion of each release stanchion bar

selectively engageable with a latch head disposed on the upper portion of the fixed support

structure, and a positioner rod operatively supported by the upper portion of the fixed support

structure to effect engagement and disengagement between the latch brackets and the latch

heads, with the release stanchion bars being locked against swinging movement during said

engagement and being free to undergo swinging movement during said disengagement.

5. Cattle stanchion apparatus as set forth in Claim 2, wherein the release stanchion bar control assembly includes a latch bracket on the upper portion of each release stanchion selectively engageable with a latch head disposed on the upper portion of the fixed support structure, and a positioner rod operatively supported by the upper portion of the support fixed structure to effect engagement and disengagement between the latch brackets and the latch heads, with the release stanchion bars being locked against swinging movement during said engagement and being free to undergo swinging movement during said disengagement.

6. Cattle stanchion apparatus as set forth in Claim 4, wherein each latch head is formed with a pair of lock slots and each latch head is movable relative to the fixed support structure; each release stanchion bar latch bracket includes a latch pin arranged in the path of a lock slot; and the latch heads are each operatively connected to the positioner rod to selectively move the latch heads towards and away from each release stanchion bar to selectively engage and release the latch pins relative to the lock slots.

7. Cattle stanchion apparatus as set forth in Claim 5, wherein each latch head is

formed with a pair of lock slots and each latch head is movable relative to its respective release

stanchion bar latch bracket;

each release bar latch bracket includes a latch pin arranged in the path of a locking slot;

and

the latch heads are each operatively connected to selectively move the latch heads

towards and away from each release bar latch pin to selectively engage and release the latch pins

relative to the lock notches.

8. Cattle stanchion apparatus for controlling movement of cattle relative to such

apparatus, said cattle stanchion apparatus comprising:

a fixed support structure;

a plurality of pairs of release stanchion bar assemblies supported by the fixed

support structure along the length of the fixed structure;

each pair of release stanchion bar assemblies including a pair of facing double release stanchion bars pivotally connected at their intermediate portions for swinging movement towards and away from one another when engaged by a cow; the space between each pair of stanchion release bars defining a cattle head receiving opening; a latch bracket on the upper portion of each stanchion release bar formed with a latch pin; latch heads on the fixed structure, each disposed above the mid-section of each of the release stanchion bar assemblies; a pair of flaps pivotally supported by each latch head, each of the flaps being formed with a locking slot; and a positioner rod horizontally rotatably carried by the fixed support structure and having flap lifting studs arranged engageable with the flaps to raise and lower the flaps whereby the latch pins of the stanchion release bars are movable into and out of engagement with the lock slots to control the swinging movement of the stanchion release bars.

9. Cattle stanchion apparatus as set forth in Claim 8, wherein the release stanchion

bars are biased to automatically assume a position in which the upper ends of such stanchion bars

are spaced apart.

10. Cattle stanchion apparatus as set forth in Claim 8, wherein the lower portion of

the release stanchion bars are weighted to cause such release stanchion bars to automatically

assume a position wherein their upper ends are spaced apart.

11. Cattle stanchion apparatus as set forth in Claim 8, wherein a flap can be manually

moved into disengagement with its respective latch head whereby the latch head's release

stanchion bar is manually moveable to an open downed cow releasing position:

latch heads on the fixed structure, each disposed above the mid-section of each of

the release stanchion bar assemblies;

a pair of flaps pivotally supported by each latch head, each of the flaps being

formed with a locking slot; and

a positioner rod horizontally carried by the fixed support structure and having flap lifting studs arranged engageable with the flaps to raise and lower the flaps whereby the latch pins of the stanchion release bar are movable into and out of engagement with the lock slots to control the swinging movement of the release stanchion bars, with the release stanchion bars being locked in a vertically extending position when the latch pins are engaged with the lock slots and being free to undergo swinging movement when the latch pins are out of engagement with the slots.

12. Cattle stanchion apparatus for controlling movement of cattle relative to such apparatus, said cattle stanchion apparatus comprising:
  - a fixed support structure;
  - a plurality of release stanchion bar assemblies supported by the fixed structure along the length of the fixed structure;
  - each pair of release stanchion bar assemblies including a pair of facing double release stanchion bars pivotally connected at their intermediate portions for simultaneous swinging movement towards and away from one another;

the space between each pair of stanchion release bars defining a cattle head receiving opening;

a latch bracket on the upper portion of each stanchion release bar formed with a latch pin;

latch heads on the fixed structure, each disposed above the mid-section of each of the release stanchion bar assemblies;

a pair of flaps pivotally supported by each latch head, each of the flaps being formed with a cow training abutment surface and with a locking slot; and

a positioner rod horizontally rotatably carried by the fixed structure and having flap lifting studs arranged engageable with the flaps to raise and lower the flaps whereby the latch pins of the stanchion release bar are movable into and out of engagement with the abutment surface, with the locking slots to control the swinging movement of the stanchion release bars, and with the stanchion release bars being locked in a vertical position when the latch pins are engaged with the lock slot and locked against swinging movement towards one another when the latch pins are engaged with the cow training abutment surfaces.

13. Cattle stanchion apparatus as set forth in Claim 12, wherein the release stanchion bars are biased to automatically assume a position in which the upper ends of such stanchion bars are spaced apart.

14. Cattle stanchion apparatus as set forth in Claim 12, wherein the lower portion of the release stanchion bars are weighted to cause such stanchion bars to automatically assume a position wherein their upper ends are spaced apart.

15. Cattle stanchion apparatus as set forth in Claim 8, wherein each flap additionally includes an elongated aperture that receives a lifting stud.

16. Cattle stanchion apparatus as set forth in Claim 9, wherein each flap additionally includes an elongated temperature compensating aperture that receives a lifting stud.

17. Cattle stanchion apparatus as set forth in Claim 10, wherein each flap additionally includes an elongated temperature compensating aperture that receives a lifting stud.

18. Cattle stanchion apparatus as set forth in Claim 12, wherein each flap additionally includes an elongated temperature compensating aperture that receives a lifting stud.
19. Cattle stanchion apparatus as set forth in Claim 13, wherein each flap additionally includes an elongated temperature compensating aperture that receives a lifting stud.
20. Cattle stanchion apparatus as set forth in Claim 14, wherein each flap additionally includes an elongated temperature compensating aperture that receives a lifting stud.